

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE CONSENT ORDER**

IN THE MATTER OF:

GREEN PLAINS SUPERIOR LLC

ADMINISTRATIVE CONSENT ORDER

NO. 2011-AQ- **26**

TO: Green Plains Superior LLC
Brian Peterson, Manager
1495 320th Avenue
Superior, Iowa 51363

Green Plains Superior LLC
c/o CT Corporation System, Registered Agent
500 East Court Avenue
Des Moines, Iowa 50309

I. SUMMARY

This administrative consent order is entered into between the Iowa Department of Natural Resources (DNR) and Green Plains Superior LLC (Green Plains) for the purpose of resolving violations pertaining to failure to obtain supplemental permits for various emission points, exceeding the Total Hazardous Air Pollutants (HAPs) and Single HAP emission limits for its CO2 Scrubber during performance testing, and violating numerous recordkeeping and stack testing provisions set forth in Green Plains' construction permits. In the interest of avoiding litigation, the parties have agreed to the provisions below.

Any questions regarding this administrative consent order should be directed to:

Relating to technical requirements:

Bryan Bunton
Environmental Specialist
Iowa Department of Natural Resources
Air Quality Bureau
7900 Hickman Road, Suite 1
Windsor Heights, Iowa 50324
Phone: 515/281-0363

Relating to legal requirements:

Anne Preziosi, Attorney for the DNR
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, Iowa 50324
Phone: 515/281-6243

Payment of penalty to:

Director of the Iowa DNR

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Wallace State Office Building
502 East Ninth Street
Des Moines, Iowa 50319-0034

II. JURISDICTION

This administrative order is issued pursuant to the provisions of Iowa Code sections 455B.134(9) and 455B.138(1) which authorize the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division II (air quality), and the rules promulgated or permits issued pursuant to that part; and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10, which authorize the Director to assess administrative penalties.

III. STATEMENT OF FACTS

1. On June 23, 2006, construction began on the Green Plains ethanol facility in Superior, Iowa. On July 7, 2008, operation commenced at the 55 million gallon ethanol plant.

2. Green Plains failed to obtain supplemental construction permits when changes were made in the final plans and specifications of the following listed emission units after air quality construction permits were issued by DNR. Unpermitted modifications were made to twelve separate emission units, as listed below in Table 1, in violation of 567 IAC 22.3(3)"e" and Condition 3 of their construction permits. On August 20, 2008, a Notice of Violation (NOV) letter was issued to Green Plains for failing to obtain supplemental permits for seven emission sources, specifically Emission Points (EP) SV02, SV04, SV05, SV07, SV08, SV11, and SV12. Construction permit applications were submitted April 3, 2008, to correct these deviations. Revised permits have yet to be issued.

3. A second NOV was issued on July 15, 2009, to Green Plains for failure to construct five storage tanks (TK001 – TK005) according to the provisions of the issued construction permits. These deviations were found during a DNR Field Office No. 3 inspection conducted on June 25, 2009. These emission units also are listed in Table 1, below. On July 6, 2009, Green Plains submitted construction permit applications to amend five storage tank permits (TK001 – TK005) to reflect the actual tank sizes. Revised permits for the five storage tanks were issued on August 5, 2009, returning these emission units to compliance status.

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Table 1.

Original Permit Application				As Constructed	
EP	Permit #	Description	Stack Height (ft)	Description	Stack Height (ft)
SV02	06-A-460	Corn Bin #1	73	Corn Bin #1	92
SV04	06-A-462	Surge Bin Stack	70	Surge Bin Stack	91 92
SV05	06-A-463	Hammermill #1	60	Hammermill #1	60 58
SV07	06-A-465	CO2 Scrubber	40	CO2 Scrubber	44
SV08	06-A-466	Vent Gas Stack	40	Vent Gas Stack	44
SV11	06-A-469	Boiler #1 Stack	44	Boiler #1 Stack	46
SV12	06-A-470	Boiler #2 Stack	44	Boiler #2 Stack	46
Original Permit Application				As Constructed	
EP	Permit #	Description	Capacity (gal)	Description	Capacity (gal)
TK001	06-A-475	Ethanol Storage Tank	128,000	Ethanol Storage Tank	184,962
TK002	06-A-476	Ethanol Storage Tank	128,000	Ethanol Storage Tank	184,962
TK003	06-A-477	Denaturant Tank	89,400	Denaturant Tank	63,415
TK004	06-A-478	Denatured Ethanol Tank	408,475	Denatured Ethanol Tank	619,217
TK005	06-A-479	Denatured Ethanol Tank	408,750	Denatured Ethanol Tank	619,217

4. Green Plains failed to timely obtain an air quality construction permit prior to installation of a DDGS Cooler By-Pass Stack (EP SV18), in violation of 567 IAC 22.1(1), which requires that, unless an exemption applies, no person shall construct, install, reconstruct, or alter any equipment, control equipment, or anaerobic lagoon without first obtaining a construction permit. No permit has been issued for this emission unit. Green Plains also failed to timely obtain construction permits for a Loadout Flare (EP SV14) and Diesel Fire Pump (EP SV15). These violations were discovered during a DNR Field Office No. 3 inspection conducted on June 25, 2009. On July 15, 2009, DNR issued a NOV to Green Plains citing these violations. On August 5, 2009, Green Plains submitted construction permit applications for these as-built emission units. Applications have been received for these units, but the permits have yet to be issued.

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5. Green Plains failed to properly maintain records for thirteen emission units from July 7, 2008, through June 25, 2009, in violation of 567 IAC 21.1(6), which requires each owner of a stationary source to maintain records as necessary to determine whether such source is in compliance with applicable emission limits or other control measures. Green Plains did not keep records of control equipment inspection and maintenance, or records of the amount of corn received, and it did not update the twelve month rolling total on a monthly basis, as required by Condition 15 of Construction Permit No. 06-A-459 (EP SV01, Grain Receiving). Green Plains did not keep records of control equipment inspection and maintenance as required by Condition 15 of Construction Permit Nos. 06-A-460 (EP SV02, Corn Bin #1), 06-A-462 (EP SV04, Surge Bin Stack), 06-A-463 (EP SV05, Hammermill #1), 06-A-465 (EP SV07, CO2 Scrubber), 06-A-466 (EP SV08, Vent Gas Stack), and 06-A-468 (EP SV10, DDGS Elevator). Green Plains did not calculate and record the monthly fugitive dust emissions and maintain records in a twelve month rolling format for EP FS06 as required by Condition 15 of Construction Permit No. 06-A-474 (EP FS06, Truck Traffic). Green Plains did not keep records of the amount of denatured ethanol produced, and update the twelve month rolling total on a monthly basis as required by Condition 15 of Construction Permit Nos. 06-A-475 through 06-A-479 (TK001, TK002, TK003, TK004, and TK005, Ethanol Storage Tanks). On July 15, 2009, an NOV letter was issued to Green Plains for failure to maintain records for numerous emission units.

6. Green Plains failed to conduct stack testing in a timely manner, as required by 567 IAC 25.1(7)"b" and Condition 12 of the construction permits listed in Table 2, below. 567 IAC 25.1(7)"b" and construction permit Condition 12 require that tests be conducted within 60 days of achieving maximum production but no later than 180 days after startup.

Table 2.

EP	Description	Permit #	Pollutant	Start-Up Date	Test Due Date	Test Date	Days Late
SV09	Various	06-A-467-S1	PM	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	PM10	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	Opacity	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	SO2	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	NOx	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	CO	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	VOC	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	THAP	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	acrolein	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	acetaldehyde	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	methanol	07/07/08	01/03/09	08/13/09	222
SV09	Various	06-A-467-S1	formaldehyde	07/07/08	01/03/09	08/13/09	222

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SV10	DDGS Elevator	06-A-468	PM	07/07/08	01/03/09	04/21/09	108
SV10	DDGS Elevator	06-A-468	PM10	07/07/08	01/03/09	04/21/09	108
SV10	DDGS Elevator	06-A-468	Opacity	07/07/08	01/03/09	04/21/09	108
SV11	Boiler #1	06-A-469	PM	07/07/08	01/03/09	04/14/09	101
SV11	Boiler #1	06-A-469	Opacity	07/07/08	01/03/09	04/14/09	101
SV11	Boiler #1	06-A-469	NOx	07/07/08	01/03/09	04/14/09	101
SV11	Boiler #1	06-A-469	CO	07/07/08	01/03/09	04/14/09	101
SV12	Boiler #2	06-A-470	PM	07/07/08	01/03/09	04/15/09	102
SV12	Boiler #2	06-A-470	Opacity	07/07/08	01/03/09	04/15/09	102
SV12	Boiler #2	06-A-470	NOx	07/07/08	01/03/09	04/15/09	102
SV12	Boiler #2	06-A-470	CO	07/07/08	01/03/09	04/15/09	102

7. Green Plains failed to operate EP SV01 in a normal manner at its maximum continuous output during stack testing, as required by Condition 12 (Initial Performance Testing Requirements) of Construction Permit No. 06-A-459. Condition 12 states that during testing, the unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the unit(s) will be operated. Testing conducted January 21, 2009 indicated EP SV01 was operated at only 13.8% of capacity. On March 26, 2009, DNR issued an NOV letter to Green Plains for operating EP SV01 at only 13.8% capacity during stack testing conducted January 21, 2009. The unit has yet to retest or be issued a revised permit.

8. Green Plains has violated total and single HAPs emission limits in Construction Permit No. 06-A-465 (EP SV07, CO2 Scrubber). Condition 10 of this permit sets an emission limit of 0.37 lbs/hr for total HAPs. Testing conducted January 8, 2009, showed EP SV07 in violation of this limit. The value found was 0.98 lbs/hr. On March 10, 2009, DNR issued an NOV letter to Green Plains for exceeding the total HAPs limit for EP SV07 during stack testing conducted January 8, 2009.

9. Testing conducted on April 22, 2009, also showed EP SV07 in violation of its emission limit of 0.37 lbs/hr for total HAPs. The values found during the April 22, 2009, testing were 1.03 and 1.48 lbs/hr under two different testing scenarios. Condition 10 of Construction Permit No. 06-A-465 also sets an emission limit of 0.35 lbs/hr for single HAP. Testing conducted on April 22, 2009, showed EP SV07 in violation of this limit as well. The values found were 0.67 and 1.13 lbs/hr under two different testing scenarios. On June 26, 2009, DNR issued an NOV letter to Green Plains for exceeding both the total HAPs and single HAP limits for EP SV07 during the April 22, 2009, stack testing. On April 30, 2009, Green Plains conducted stack testing on EP SV07, and the testing showed compliance with both its total HAPs and single HAP limits.

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IV. CONCLUSIONS OF LAW

1. Iowa Code section 455B.133 provides that the Environmental Protection Commission (Commission) shall establish rules governing the quality of air and emission standards. The Commission has adopted 567 IAC chapters 20-35 relating to air quality.

2. 567 IAC 22.3(3)"e" and construction permit Condition 3 of the air quality construction permits listed in Table 1 above requires that a supplemental permit be obtained if changes are proposed by the permittee to the final plans and specifications of an emission unit after the permit has been issued. Under these requirements, Green Plains failed to submit applications and receive amended construction permits for the emission units listed in Table 1, above, prior to making modifications on twelve separate occasions.

3. 567 IAC 22.1(1) requires that unless exempt, no person shall construct, install, reconstruct, or alter any equipment, control equipment, or anaerobic lagoon without first obtaining a construction permit. Green Plains installed a DDGS Cooler By-Pass Stack (EP SV18), a Loadout Flare (EP SV14) and a Diesel Fire Pump (EP SV15) without first obtaining a construction permit.

4. 567 IAC 21.1(6) requires that each owner of a stationary source maintain records as necessary to determine whether such source is in compliance with applicable emission limits or other control measures. Green Plains did not properly maintain records for thirteen emission sources from July 7, 2008 through June 25, 2009.

5. 567 IAC 25.1(7)"b" and construction permit Condition 12 of the permits listed in Table 2, above, require that tests be conducted within 60 days of achieving maximum production but no later than 180 days after startup. Green Plains failed to conduct stack testing in a timely manner, as required by 567 IAC 25.1(7)"b" and Condition 12 of the construction permits listed in Table 2, above.

6. 567 IAC 22.3(3) states that construction permits may be issued subject to conditions which shall be specified in writing. The rule also states that the conditions may include emission limits and compliance testing requirements. Condition 12 of Construction Permit No. 06-A-459 (EP SV01, Grain Receiving), states that during testing, the unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the unit(s) will be operated. Testing conducted January 21, 2009 showed EP SV01 was operated at only 13.8% of capacity.

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7. Pursuant to 567 IAC 22.3(3), which states that construction permits may be issued subject to emission limits and compliance testing requirements which shall be specified in writing, DNR issued Construction Permit No. 06-A-465 (EP SV07, CO2 Scrubber). Condition 10 of this permit contains total and single HAP limits, which were violated by Green Plains during stack testing conducted on January 8, 2009, and April 22, 2009.

V. ORDER

THEREFORE, DNR orders and Green Plains agrees to the following:

1. Pay a penalty of \$10,000.00 within 45 days of the date this order is signed by the Director.

VI. PENALTY

Pursuant to the provisions of Iowa Code section 455B.109 and 567 IAC chapter 10, which authorize the Director to assess administrative penalties, a penalty of \$10,000.00 is assessed by this administrative consent order. The penalty must be paid within 45 days of the date this order is signed by the Director. The administrative penalty is determined as follows:

Iowa Code section 455B.146 authorizes the assessment of civil penalties of up to \$10,000.00 per day of violation for the air quality violations involved in this matter. More serious criminal sanctions are also available pursuant to Iowa Code section 455B.146A.

Iowa Code section 455B.109 authorizes the Commission to establish by rule a schedule of civil penalties up to \$10,000.00 that may be assessed administratively. The Commission has adopted this schedule with procedures and criteria for assessment of penalties through 567 IAC chapter 10. Pursuant to this rule, DNR has determined that the most effective and efficient means of addressing the above-cited violations is the issuance of an administrative consent order with a penalty. The administrative penalty assessed by this order is determined as follows:

Economic Benefit – Failure to conduct stack tests in a timely manner allowed Green Plains to gain an illegal competitive advantage over similar facilities that do conduct tests in a timely manner. These actions allowed the facility to postpone payments to stack testing firms until a later date, and to use these funds for some other economic purpose. In addition, this action delays the potential cost of taking corrective action through re-permitting activities with the DNR or conducting additional tests to demonstrate compliance, if necessary. Failure to conduct tests in a timely manner also prevents the DNR from evaluating the potential environmental impact of the emission units, and the requiring of corrective action, if necessary. In

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addition, failure to maintain records either delays or avoids the cost of maintaining the records and prevents the DNR from evaluating the potential environmental impact during inspection. Green Plains did not properly maintain records for thirteen emission sources from July 7, 2008 through June 25, 2009. Therefore, a penalty of \$1,000.00 is assessed for economic benefit

Gravity of the Violation –HAPs were emitted above the permit emission limits of 0.35 lbs/hr for single HAP and 0.37 lbs/hr for total HAPs set forth in Construction Permit No. 06-A-465. Testing conducted January 8, 2009, indicated EP SV07 was in violation of its 0.37 lbs/hr total HAPs limit with a value of 0.98 lbs/hr. Testing conducted April 22, 2009, indicated EP SV07 was again in violation of its 0.37 lb/hr total HAPs and also its 0.35 lb/hr single HAP limits under two tested conditions:

Condition 1 (1.6 gal/min) Results	Condition 2 (0.8 gal/min) Results
Single HAP 0.67 lb/hr Total HAPs 1.03 lbs/hr	Single HAP 1.13 lbs/hr Total HAPs 1.48 lbs/hr

The unit remained out of compliance until April 30, 2009, during which time an estimated 0.89 tons of HAPs emissions occurred. Further, the failure of Green Plains to obtain supplemental permits prior to construction or modification has prevented the DNR from evaluating the potential emissions and ambient air impacts from the modified emission units. In addition, modification or construction of emission units prior to obtaining the required permits threatens the integrity of the permitting and air pollution control programs. Failing to obtain supplemental permits for the sources listed in Table 1 also resulted in the violation of Condition 3 of the construction permits for these sources. Finally, the integrity of the air permitting program also is threatened when stack tests are not completed in a timely manner. For the reasons stated above, \$7,500.00 should be assessed for the gravity of the violations.

Culpability –In 2006, Green Plains acquired Superior Ethanol, LLC, and the plant became Green Plains Superior, LLC. The Green Plains company continues to grow through various mergers and acquisitions, and now operates several ethanol plants and country grain elevators throughout the state, each subject to the requirements of the Clean Air Act. Green Plains thus displays a certain degree of negligence in this case. For this reason \$1,500.00 should be assessed for this culpability.


VII. WAIVER OF APPEAL RIGHTS

This administrative consent order is entered into knowingly and with the consent of Green Plains. For that reason, Green Plains waives its rights to appeal this order or any part thereof.

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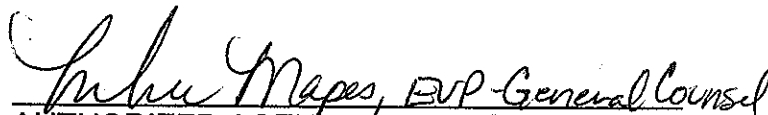
VIII. NONCOMPLIANCE

Failure to comply with this administrative consent order, including failure to timely pay any penalty, may result in the imposition of further administrative penalties or referral to the attorney general to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.146. Compliance with Section "V. Order" of this administrative consent order constitutes full satisfaction of all requirements pertaining to the specific violations described in Section "IV. Conclusions of Law" of this administrative consent order.



Roger L. Lande, Director
Iowa Department of Natural Resources

Dated this 16th day of
October, 2011.



John Mapes, EVP-General Counsel
AUTHORIZED AGENT
Green Plains Superior LLC
#Corporate Secretary

Dated this 4th day of
October, 2011.

Facility No. 30-08-002; Anne Preziosi; DNR Field Office 3; VII.A.1.